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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/754,592	01/05/2001	John Steven Holmes	9D-HR-19412- Holmes et al	3856
7590	08/12/2004		EXAMINER NGUYEN, PHUNG	
John S Beulick Armstrong Teasdale LLP One Metropolitan Square Suite 2600 St Louise, MO 63102			ART UNIT 2632	
DATE MAILED: 08/12/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/754,592

Applicant(s)

HOLMES ET AL.

Examiner

Phung T Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 January 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 13-19 is/are rejected.
- 7) ☒ Claim(s) 8-12 and 20-24 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>3</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-7, and 13-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sigelman et al. (U.S. Pat. 4,691,195) in view of Sidebottom (U.S. Pat. 4,463,348).

Regarding claim 1: Sigelman et al. disclose self-contained refrigerator open door indicator which comprises receiving a signal from the switch when the switch is activated; phase-shifting the signal; feeding the phase-shifted signal and monitoring an output signal (col. 1, lines 27-37, col. 2, lines 5-9, and col. 3, lines 66-68). Sigelman et al. do not disclose comparing the output signal with a line signal to determine whether the door is open. However, comparing the output signal to the established threshold values is old and known in the art as taught by Sidebottom (col. 4, lines 64-68, and col. 5, lines 1-16). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to employ the teaching of Sigelman et al. in the system of Sidebottom because they both teach a device for indicating that a refrigerator door is open. It is seen that Sidebottom's teaching of comparing the output signal with the predetermined value would be more accurate in order to determine the refrigerator door is open.

Regarding claim 2: Sigelman et al. inherently disclose rectifying the signal; and phase-shifting the rectified signal (col. 4, lines 31-51).

Regarding claim 3: Sigelman et al. disclose wherein the step of rectifying the signal comprises the step of half-wave rectifying the signal (col. 3, lines 58-68).

Regarding claim 4: Sigelman et al. disclose the phase shifting circuit 120 which uses the capacitance of the two plates to maintain two pulse trains out of phase (figure 3, col. 3, lines 65-68). Sigelman et al. and Sidebottom do not teach producing a shifted voltage leading a line voltage as claimed. Since Sigelman et al. teach the use of the phase shifting circuit, it would be obvious to recognize that the phase shifting circuit of Sigelman et al. can also produce a shifted voltage leading a line voltage.

Regarding claim 5: The claimed limitation is already discussed in respect to claim 4 above except the shifted voltage leads the line voltage by a lead value between zero degrees and 90 degrees. However, it would be obvious to the skilled artisan to adjust the shifted voltage leads the line voltage by a lead value between zero degrees and 90 degrees as desired.

Regarding claim 6: Sigelman et al. disclose the phase shifting circuit 120 which uses the capacitance of the two plates to maintain two pulse trains out of phase (figure 3, col. 3, lines 65-68). Sigelman et al. and Sidebottom do not teach producing a shifted voltage lagging a line voltage as claimed. Since Sigelman et al. teach the use of the phase shifting circuit, it would be obvious to recognize that the phase shifting circuit of Sigelman et al. can also produce a shifted voltage lagging a line voltage.

Regarding claim 7: The claimed limitation is already discussed in respect to claim 6 above except the shifted voltage lags the line voltage by a lag value between zero degrees and -90 degrees. However, it would be obvious to the skilled artisan to adjust the

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shifted voltage lags the line voltage by a lag value between zero degrees and -90 degrees as desired.

Regarding claim 13: All the claimed subject matter is already discussed in respect to claim 1 above.

Regarding claim 14: Refer to claim 2 above.

Regarding claim 15: Refer to claim 3 above.

Regarding claim 16: Refer to claim 4 above.

Regarding claim 17: Refer to claim 5 above.

Regarding claim 18: Refer to claim 6 above.

Regarding claim 19: Refer to claim 7 above.

Allowable Subject Matter

3. Claims 8-12, and 20-24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. Neuman [U.S. Pat. 4,891,626] discloses refrigerator door ajar detection system.

b. Prada [U.S. Pat. 4,241,337] discloses appliance door position sensor arrangement.

c. Griffin [U.S. Pat. 3,996,434] discloses household freezer door alarm switch having an automatic resetting deactivator.

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d. Lee [U.S. Pat. 5,887,446] discloses refrigerator equipped with a refrigerator lamp magnet switch.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phung T Nguyen whose telephone number is 703-308-6252. The examiner can normally be reached on 8:00am-5:30pm Mon thru. Friday, with alternate Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel J. Wu can be reached on 703-308-6730. The fax numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-308-9051 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-306-0377.

Examiner: Phung Nguyen

A handwritten signature in cursive script, appearing to read 'Phung Nguyen', with a long horizontal flourish extending to the right.

Date: August 4, 2004